

LEVEL

510
(12)

Research Problem Review 77-15

AD A089816

**AN EVALUATION SYSTEM FOR ARMY ROTC
ADVANCED SUMMER CAMP**

DTIC
ELECTE
S **OCT 2 1980** **D**
C



U. S. Army

Research Institute for the Behavioral and Social Sciences

MARCH 1978

This document has been approved
for public release and sale; its
distribution is unlimited.

DDC FILE COPY

U. S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES

A Field Operating Agency under the Jurisdiction of the
Deputy Chief of Staff for Personnel

JOSEPH ZEIDNER
Acting Technical Director

W. C. MAUS
COL, GS
Commander

| | |
|----------------|--|
| Accession For | <input checked="checked" type="checkbox"/> |
| NTIS GRA&I | <input type="checkbox"/> |
| DTIC TAB | <input type="checkbox"/> |
| Unannounced | <input type="checkbox"/> |
| Justification | |
| BY _____ | |
| DATE _____ | |
| APPROVED _____ | |
| REMARKS _____ | |
| A | |

NOTICES

DISTRIBUTION: Primary distribution of this report has been made by ARI. Please address correspondence concerning distribution of reports to: U. S. Army Research Institute for the Behavioral and Social Sciences, ATTN: PERIP, 5001 Eisenhower Avenue, Alexandria, Virginia 22333.

FINAL DISPOSITION: This report may be destroyed when it is no longer needed. Please do not return it to the U. S. Army Research Institute for the Behavioral and Social Sciences.

NOTE: The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

Army Project Number
2Q763731A768

Officer and NCO

(16) (14) P R 7 - Research Problem Review 77-15

(6) AN EVALUATION SYSTEM FOR ARMY ROTC ADVANCED SUMMER CAMP

(10) J. R. Mietus and
William H. Helme, ~~Work Unit Leader~~

(12) 38

Submitted by:
Ralph R. Canter, Chief
PERSONNEL ACCESSION & UTILIZATION TECHNICAL AREA

(11) March 1978

This document has been approved
for public release and wider
distribution is authorized.

Approved by:

E. Ralph Dusek, Director
Individual Training & Performance
Research Laboratory

Joseph Zeidner, Acting Technical
Director
U.S. Army Research Institute for
the Behavioral and Social Sciences

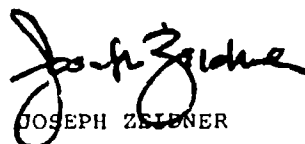
Research Problem Reviews are special reports to military management. They are usually prepared to meet requests for research results bearing on specific management problems. A limited distribution is made--primarily to the operating agencies directly involved.

FOREWORD

The Personnel Accession and Utilization Technical Area of the Army Research Institute for the Behavioral and Social Sciences performs research in recruiting, selection, classification, and career development of Army officer and enlisted personnel. Officer career research includes the continuing development of achievement measures and rating techniques, and support of the Officer Personnel Management System (OPMS) and the Reserve Officers' Training Corps (ROTC).

ROTC cadets are systematically evaluated on their performance and leadership potential during the 6-week Advanced Summer Camp, as a partial basis for later assignment decisions. With the introduction of women in ROTC and the increased use of performance-based techniques for measuring individual skill development, changes in the evaluation system in Advanced Summer Camp were called for. The present report presents suggestions for a revised and improved evaluation system.

Research was accomplished under Army Project 2Q763731A768, in response to requests from the Office of the Deputy Chief of Staff for ROTC of the Army Training and Doctrine Command (ODCS-ROTC, TRADOC).



JOSEPH ZEINER

Acting Technical Director

AN EVALUATION SYSTEM FOR ARMY ROTC ADVANCED SUMMER CAMP

BRIEF

Requirement:

To develop an improved evaluation system to assess performance and judge leadership potential of ROTC cadets in ROTC Advanced Summer Camp.

Procedure:

Decisions in cadet evaluation must consider what should be measured and where and how to measure it. Research indicates that leadership performance can be measured as "hard skills" (cognitive performance) and "soft skills" (noncognitive performance). Hard skills such as reading a map have specific right or wrong responses. Soft skills involve value judgments and appropriate ways of acting, such as shouting an order or quietly making a request. Not only are an ROTC cadet's career intentions assessed in Advanced Camp, but a cadet's ability to cope with the stresses of Advanced Camp's military field environment is a good indicator of future success as an officer.

Findings:

Appropriate evaluation methods are: (1) objective performance tests, or performance-based tests, to assess hard skills; (2) querying the cadet to learn career intentions; and (3) judgmental ratings by staff cadre and by fellow cadets to assess soft-skill leadership performance and to record inferences about leadership potential. Cadre ratings may be made on overall camp performance or on specific situations. Peer ratings, properly guarded against bias, also provide valid measures of leadership effectiveness.

Specific evaluation measures were suggested by subject for the 1977 camp.

Utilization of Findings:

Many of the specific suggestions have been incorporated into the ROTC Advanced Camp evaluation system.

AN EVALUATION SYSTEM FOR ARMY ROTC ADVANCED SUMMER CAMP

CONTENTS

| | Page |
|--|------|
| THE CADET EVALUATION SYSTEM | 1 |
| LEADERSHIP BEHAVIOR BASED ON OFFICER ASSESSMENT RESEARCH | 4 |
| Mission Persistence | 6 |
| Technical Managerial Leadership | |
| Combat Leadership | 6 |
| Team Leadership as Opposed to Personal Resourcefulness | 6 |
| Command of Men as Opposed to Technical Specialist | 7 |
| Executive Direction as Opposed to Technical Tenacity | 7 |
| Leadership Performance | 7 |
| Tactical Staff Skills | 8 |
| Technical Staff Skills | 8 |
| Factor Relationships | 8 |
| MEASUREMENT STRATEGIES AT ADVANCED CAMP | 8 |
| Hard Skill Measurement | 9 |
| Leadership Soft Skill Measurement | 9 |
| SPECIFIC SUGGESTIONS IN RELATION TO SUBJECT MATTER | 20 |
| EVALUATION SUMMARY | 27 |
| REFERENCES | 29 |

TABLES

Page

| | | |
|----------|---|----|
| Table 1. | Total Cadet Evaluation System | 2 |
| 2. | Intercorrelations of scores at 1975 Fort Lewis Camp | 18 |

FIGURES

| | | |
|-----------|--|----|
| Figure 1. | Structure of Total Evaluation System | 3 |
| 2. | General Factors of Officer Performance Evaluated in a Simulated Combat Situation | 5 |
| 3. | An Example of a Behaviorally-Anchored Graphic Rating Scale | 12 |
| 4. | Another Example of a Behaviorally-Anchored Graphic Rating Scale | 13 |
| 5. | Recommended Simple Graphic Rating Scale | 15 |
| 6. | Performance Data Card, 1975 Camp | 17 |
| 7. | Recommended Evaluation for Subject Matter | 28 |

NOTE. When this paper was prepared, changes in the Army ROTC Advanced Camp Evaluation System for 1977 were being considered. Some of the suggestions in this paper were in fact incorporated into the 1977 system, and a number of additional changes to the evaluation system have been implemented since. Such changes, occurring between the time at which this paper was written and the time it was published, make some of the suggestions contained herein irrelevant to the current operational system. However, it is felt that the general concepts underlying specific recommendations remain relevant to this system and that the reader will obtain maximum benefit by focusing on such concepts.

AN EVALUATION SYSTEM FOR ARMY ROTC ADVANCED SUMMER CAMP

The Advanced ROTC Summer Camp Evaluation System is a means for assessing, in the training environment, a cadet's military skills, knowledge, and performance. The assessment furnishes developmental feedback to individual cadets, as well as providing their military science professors with a measure of their development as potential military officers. Furthermore, assessment helps the Department of the Army make selection and placement decisions such as ROTC scholarship awards, Regular Army commissions, Active Duty/Active-Duty-for-Training assignments, and military occupational specialty assignments. Finally, assessments serve as criteria for evaluating the ROTC selection and training systems.

This report describes a model presented to the Army for the 1977 Advanced Camp evaluation system and explains the rationale of the model.

THE CADET EVALUATION SYSTEM

The Advanced Summer Camp Evaluation System is actually a sub-part of the Cadet Evaluation System, which uses an aggregate approach toward assessing a cadet. Many aspects of his¹ behavior and abilities are measured, using several different techniques. Table 1 shows the total Cadet Evaluation System, what measurements are used, and how and when they are obtained.

The total system assesses a cadet's intellectual functioning and achievement, potential for selected military specialties, development of skills, and qualities of leadership. His performance is measured and is also rated by himself, his cadre, and his peers. The summer camps are integral to this system. Basic Camp, attended by two-year program cadets before they enter Military Science III, provides an assessment of their leadership qualities and military skills that would otherwise be unavailable. In fact, the Basic Summer Camp attempts to obtain information about the two-year program cadet almost equal to that gained through two years of work with a cadet enrolled in the four-year program.

Advanced Summer Camp places the cadet in a field environment, providing "hands-on" performance information necessary for counseling, selection, and placement. Essentially, it is the major opportunity to observe his empirical knowledge and skills.

To further place the Advanced Camp Evaluation System in context, Figure 1 shows a three-way matrix of the structure of the Total Evaluation System.

¹Throughout this report the masculine pronoun has been used to include male and female cadets.

TABLE 1. Total Cadet Evaluation System.

| TIME | | | | | | | |
|--------------------|---|--|---|-------------------------------|---|-------------------------------|--|
| | PRE - MS I | MS I | MS II | BASIC SUMMER CAMP | MS III | ADVANCED CAMP | MS IV |
| EVALUATION MEASURE | SAT - Scholastic Aptitude Test or ACT - American College Test | 1. RQ - R.O.T.C. Qualifying Exam 2. Course grades | 1. CEB - Cadet Evaluation Battery 2. Course grades | Camp Evaluation System | 1. AAI - Army Adaptation Inventory 2. CBS - Campus Behavior Scale 3. DOAB - Differential Officer Assignment Battery 4. Course grades | Camp Evaluation System | 1. ROE - 2 - ROTC Evaluation 2. Course grades |
| WHAT IS MEASURED | Verbal and mathematical achievement | 1. Verbal and mathematical achievement 2. Academic achievement | 1. Combat and technical-managerial leadership potential; 2. Academic achievement | Military skills and knowledge | 1. Drive; career orientation 2. Personal competence 3. Specific potentials for career assignments 4. Academic achievement | Military skills and knowledge | 1. Personal characteristics 2. Academic achievement |
| HOW IT IS MEASURED | Printed multiple choice test | 1. Printed multiple choice test 2. Various skill and knowledge measures | 1. Printed multiple choice test 2. Various skill and knowledge measures | Ratings and performance tests | 1. Self-report 2. Ratings by instructors 3. Printed multiple choice test and inventory 4. Various skill and knowledge measures | Ratings and Performance tests | 1. Ratings 2. Various skill and knowledge measures |
| COMMENT | | 1. Alternate if no SAT/ACT | | Two-year program cadets only | 2,3. Introduction planned for 1977 | | To be replaced by Campus Behavior Scale (CBS) |

In this table, the three dimensions are: (1) the method of obtaining measurements, (2) the content measured, and (3) the situation in which the measurement is made.

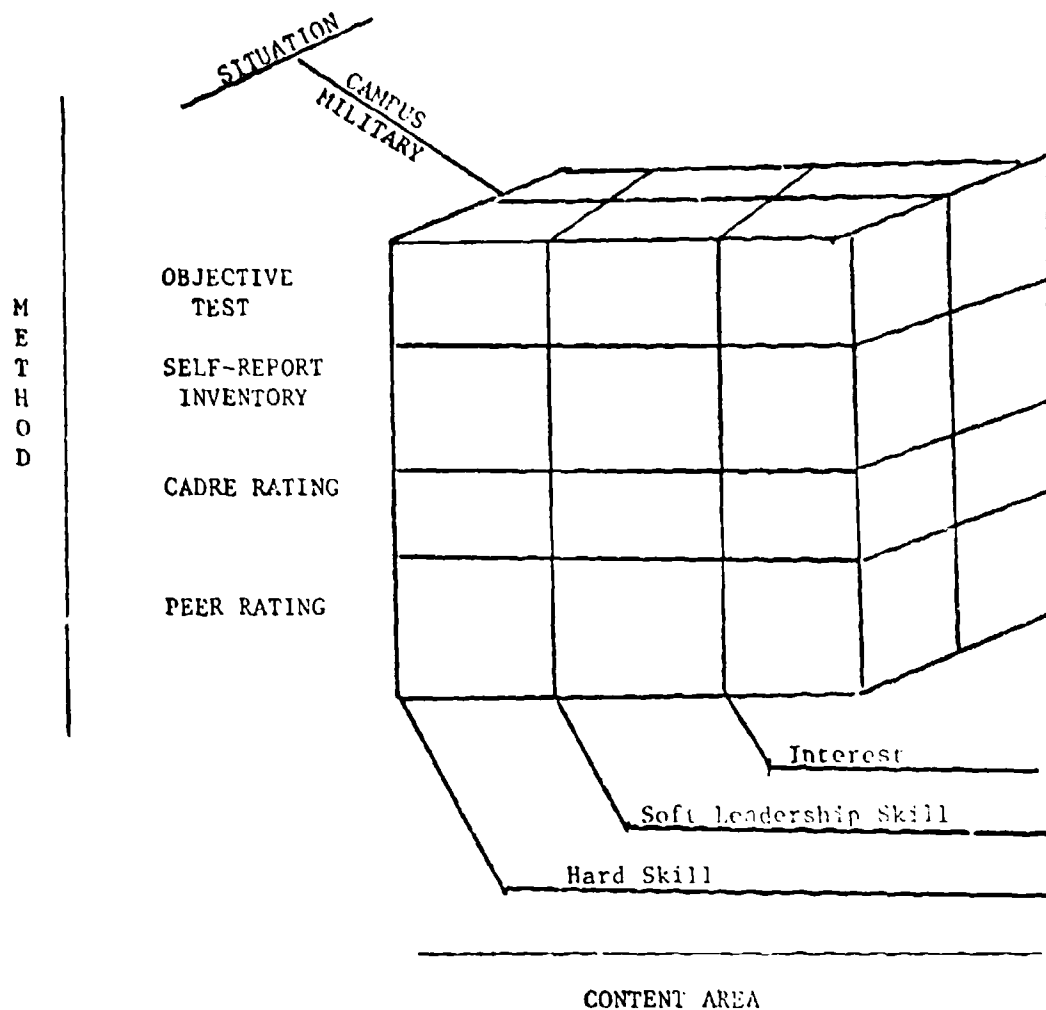


Figure 1. Total Cadet Evaluation System

In this figure the three dimensions are: (1) the method of obtaining measurements, (2) the content measured, and (3) the situation in which the measurement is made.

Methods of obtaining measurements are: (a) objective performance outputs, such as physical fitness test scores, number of correct responses on an achievement test and time-distance scores on a land navigation test; (b) self-report inventories of the cadet's own responses to questions about his background and activities, his attitudes and beliefs; and (c) ratings of performance by others, such as peers, cadre officers and NCOs.

Content measures are in three categories: hard skills, soft leadership skills, and interests. Hard skills are those with specific right or wrong responses, such as a correct solution to a map reading problem, or the number of hits on a target. Soft skills pertain to the style or manner in which tasks are executed. They contain value judgments which often tend to be bipolar in concept. For example, a cadet may use power or conciliation to achieve his ends. Quantity may be viewed as preferable to quality or vice versa. Daring and risk-taking may be preferred over care and caution, or the other way around. Often a "soft skill" can become detrimental if carried to excess: Daring and risk-taking can change to recklessness, caution to timidity. In fact, it is considered more useful to replace general concepts such as caution or forcefulness with specifics, such as forceful command of men in combat or cautious approaches to design of operations (Uhlaner, 1975, p. 3.). The third content category, interest, attempts to measure the extent to which the cadet has committed himself to a career as an Army officer.

The third dimension in the model is the situation in which these measurements are made. An ROTC cadet spends most of his time in a civilian, academic environment, whereas his life as an officer will be in a military, bureaucratic setting involving different performance demands. An officer must be competent in turbulent and emotionally and physically stressful situations. Summer camp provides exactly the context in which this gap can be closed. The cadet's ability to handle non-academic stressful situations in this more concentrated environment is an important measure of his command potential.

LEADERSHIP BEHAVIOR BASED ON OFFICER ASSESSMENT RESEARCH

ARI research on officer leadership performance has described eight behavior factors leading to effective mission performance. These factors, or performance dimensions, studied in realistic situations, all involve the hard and soft skill factors defined earlier in this report and fall into the domains of combat or technical-managerial leadership. Specifically, the Officer Evaluation Center (OEC) research program and subsequent analyses (Uhlaner 1970, 1975; Helme, Willemin & Grafton, 1971, 1974) show these leadership behavior factors to be related to effective accomplishment of a variety of missions, such as establishing a roadblock, assessing captured weapons, or selecting depot sites. The eight major factors are discussed below and in Figure 2 (adapted from Uhlaner, 1975).

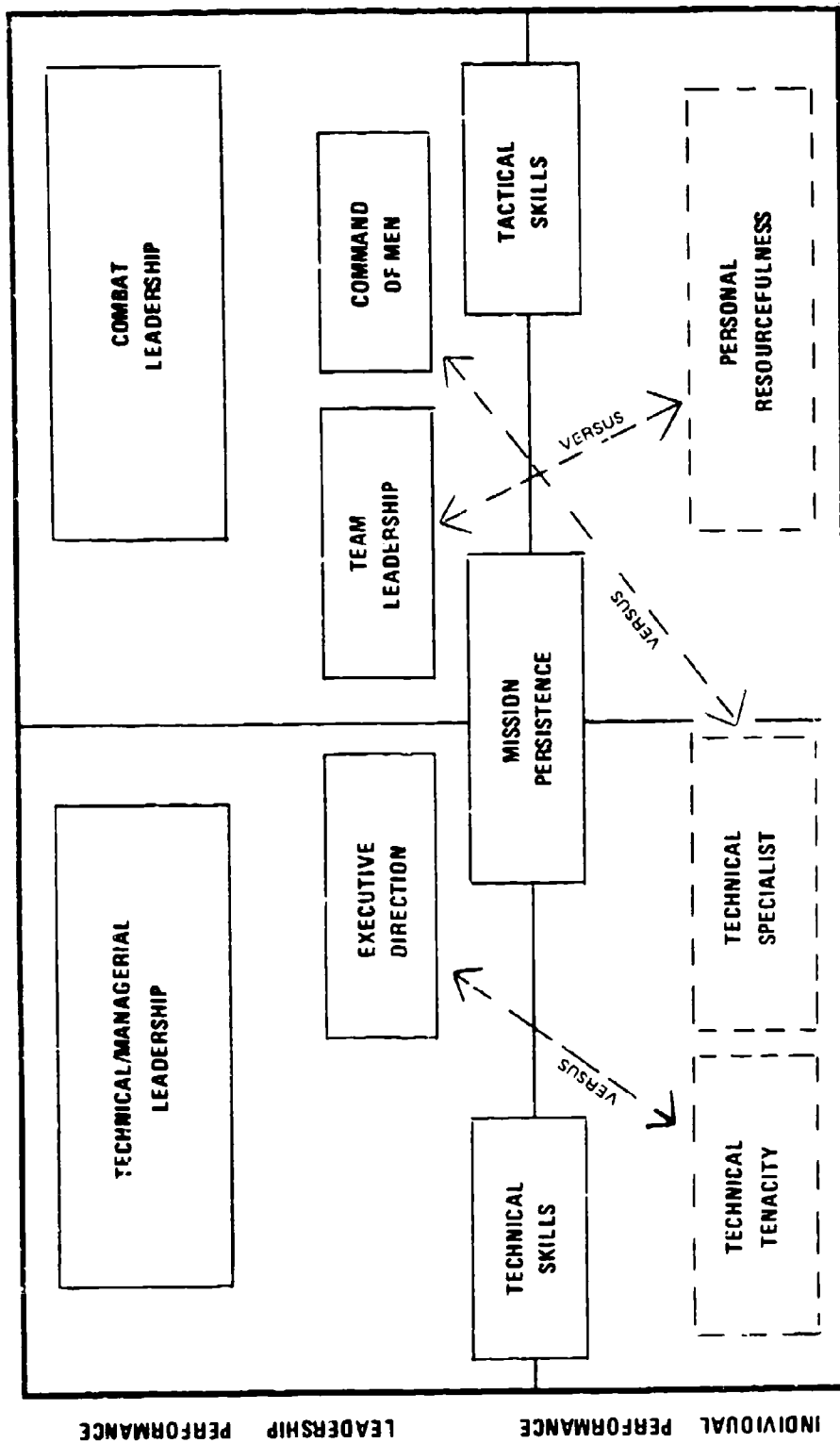


Figure 2. General factors of officer performance evaluated in simulated combat situation

There is substantial differentiation between the combat and technical/managerial domains of management leadership. In Figure 2, note the four quadrants of the model. Those on the right of the figure relate to factors of leadership in combat, whereas those on the left deal with leadership related to technical/managerial performance. The upper two quadrants show dimensions in which the leader accomplishes his objectives through his team or through other men and women. Dimensions shown in the lower quadrants, although important to effective operational leadership, represent the individual behaviors depending on his knowledge, capability, and resourcefulness.

MISSION PERSISTENCE

One dimension emerging from the research data which sits astride all four quadrants is mission persistence, which includes dogged persistence in carrying out orders and willingness to risk personal safety to achieve a goal. The officer must accept his role as an essential instrument in pursuing mission goals. This attitude runs through diverse behaviors in diverse situations, directing maintenance of combat vehicles, keeping combat reconnaissance teams going, or resisting enemy interrogation. In fact, mission persistence appears to be a key factor in all leader performance.

TECHNICAL/MANAGERIAL LEADERSHIP

The first major factor shown in Figure 2 is technical/managerial leadership, which emphasizes effective problem solving in support of combat operations. Well-organized planning, reporting, and follow-through under varying degrees of stress exemplify this behavior.

COMBAT LEADERSHIP

The second major factor, combat leadership, describes effective conduct of combat missions through use of men and material appropriate to given situations. Decisive response to emergencies, clear direction, and active example are key behaviors. The central aspects of this factor are forcefulness and assurance, coupled with consideration for men. The successful combat officer relies on tactical knowledge and specific performance skills.

TEAM LEADERSHIP AS OPPOSED TO PERSONAL RESOURCEFULNESS

Teamwork-oriented behavior first involves carrying out command missions, training and using men, providing on-site security, understanding the mission, keeping cool, and reporting effectively to superiors. The other end of this factor is self-reliance, in which the individual

displays courage, endurance, and personal commitment. Thus, effective team leadership involves a continuum from reliance on oneself to reliance on a team to accomplish an objective.

COMMAND OF MEN AS OPPOSED TO TECHNICAL SPECIALIST

This aspect of combat leadership is characterized by a commander who effectively employs men as contrasted to one who functions as a technical specialist. Components of the command aspect are ability to control in a field operation, to make timely decisions, and to motivate men in combat. The technical specialist factor is measured by performance in areas such as automotive inspection, assessing captured weapons, computing radiation levels, or selecting depot sites.

EXECUTIVE DIRECTION AS OPPOSED TO TECHNICAL TENACITY

One end of this continuum depicts the military leader operating in a variety of situations: determining combat security, selecting depot sites, assessing damage from enemy action--all tasks requiring decisive and timely action as well as organizing ability, endurance, and maintenance of technical competence under stress. Effectiveness seems to depend on use of perseverance and oral communication to impress subordinates, peers and superiors. At the other end of this continuum is individual technical tenacity, the ability to apply decisiveness, organizing ability, and special knowledge to the solution of technical/managerial problems oneself rather than through the organizational structure.

LEADERSHIP PERFORMANCE

The performance of the leader is affected by both cognitive and non-cognitive aspects of his behavior. For example, the combat officer must rely on solid tactical knowledge and skill. However, the manner in which he applies this skill is influenced by noncognitive factors such as his demeanor, his system of values, or his attitude toward subordinates and peers and toward the mission objective, all brought to bear in a particular environment. To the officer in a technical/managerial activity, cognitive technical skills are basic to performance. Even so, his success will also depend on his ability to direct subordinates, maintain poise under emergency demands, and to persist toward the accomplishment of his mission.

Thus, the seventh and eighth factors demonstrate both the differential requirements of combat and technical/managerial duties and the common requirement for cognitive abilities, however different these may be.

TACTICAL STAFF SKILLS

This factor in the effectiveness of the combat leader depends on effective application of specialized knowledge and skills in combat operations. Among skills measured are the ability to deploy troops, use or set up networks of facilities, and to use or set up combat zone communications.

TECHNICAL STAFF SKILLS

The final factor involves a major aspect of technical/managerial performance--the use of specific knowledge and skills in logistics and technical services in support of combat activities. This factor is characterized by practical application of knowledge of material in a setting requiring effective staff relations.

FACTOR RELATIONS

Some factors in the figure are connected by arrows. To conceptualize such factors one should recognize that a person working individually and solving his own technical problem with tenacity is not likely to expend additional energy directing or commanding others in the execution of the same task. Thus, certain factors compete with each other within the same person or among otherwise comparable performances. Different individuals may accomplish identical tasks using different allocations between personal and supervisory skills.

MEASUREMENT STRATEGIES AT ADVANCED CAMP

Given the preceding information, what should be measured during the camp and how should it be measured? At the same time the cadet is familiarizing himself with weapons, communications systems, tactics, and land navigation, he is developing the soft skills necessary to succeed as an officer. In fact, most cadets acquire the requisite level of hard skill expertise, but vary widely in complex general leadership behavioral factors such as self-reliance, persistence and team leadership. This fact has implications for both measurement and development.

Most hard skill development can be measured through objective performance and knowledge tests because correct and incorrect responses are readily identified. Because cadets are at similar levels of development, measurement can zero in on specific accomplishment of goals. However, effective measurement of soft skills requires a different strategy. There are no objectively correct or incorrect response patterns. There is wide variation in individual development. Some leadership skills can be observed during a single episode such as a cadet's briefing a squad effectively, or maintaining poise under turbulent conditions. Others,

such as perseverance or the ability to establish rapport and the trust of subordinates and peers, require extended periods of observation by a trained rater. Soft skill measurement therefore requires the use of several raters and rating strategies to be effective.

HARD SKILL MEASUREMENT

The military knowledge and skill cognitive areas should be evaluated with objective performance tests. Of course, the cadet's physical fitness level should also be specifically evaluated. One system of objective performance testing, the Skill Qualification Test (SQT), can serve as a model.

The first requirement in designing performance tests is to establish the task list and the level of competence expected at various points in a cadet's training. Certain tasks primarily related to personal behavior, such as knowing how to prevent heat exhaustion, handle basic instructions, maintain and use personal military equipment, maintain a level of physical fitness, and perform basic land navigation skills, should be learned to proficiency.

Other skills, such as tactics, weapons, advanced land navigation, and signal communication, should be learned to carefully specified levels of proficiency, because they serve as a framework for future learning and performance. Even though the primary purpose of teaching many of these subjects is orientation, it would be inappropriate not to evaluate mastery of whatever material has been presented. Both written and performance-based tests can be profitably used in ROTC Camp. The reader is therefore referred to Advanced Materials for SQT Development Workshops (Individual Training and Evaluation Group) and Procedures for Validating Skills Qualification Tests (Hirshfeld, Young & Maier, 1976) for the rationale and method of the Skill Qualification Test. These manuals would be useful for anyone associated with the design of the curriculum and assessment systems at ROTC Camp, even though the SQT is designed to measure mastery of critical tasks of an enlisted person's Military Occupational Specialty. Because the cadet is not expected to demonstrate comparable proficiency, the task boundaries and situational conditions for assessment must be restructured for use at ROTC Camp.

LEADERSHIP SOFT SKILL MEASUREMENT

Objective performance testing cannot easily be adapted to measurement of leadership soft-skill areas. As was stated earlier, judgments of a correct or incorrect means to an end do not suffice. A cadet's leadership performance cannot effectively be judged with purely objective measures. Many factors besides the individual's leadership performance can also determine the outcome of an assignment or mission. Therefore a trained observer can best measure the cadet's non-cognitive performance.

Cadet behavior, tasks and outcomes in soft-skill areas, especially for a leadership position, can be likened to those of a junior officer or supervisor. The cadet must exhibit behavior judged most effective in identifying, assimilating, and using resources toward sustaining, over time, the function of the unit (Campbell et al., 1970). Whether assigned as leader or follower, the cadet is responsible for the optimal functioning of his unit and the effectiveness of the company organization. His allocation of resources, material and human, to accomplish his ends may vary within limits, without any loss of his functioning.

Thus, there is a problem in assessing a cadet's leadership performance. One cannot judge his performance solely on whether his unit accomplished a mission. Instead, the focus should be on actions or behaviors contributing to optimal functioning. A measure is deficient if it includes only a few rather than all of the behaviors required for a job. For example, effectiveness in planning activities would be clearly deficient as a comprehensive measure of effective use of resources. At the other extreme, a measure may be excessive if it includes elements beyond those necessary to affect outcome. Leading a squad for 24 hours in garrison activities at camp would be a very difficult mission to fail to accomplish. On the other hand, leading a squad in a tactical maneuver is difficult when both leader and squad are inexperienced, do not yet function as a unit, and may be in a constrained situation subject to administrative and safety controls. If measurement in this situation were based on mission accomplishment, distribution of scores would be skewed to the non-effective end, showing little variance among cadets.² Such a measure provides no new information to the cadet or to selection boards. Both know a summer camp cadet is not likely to lead tactical maneuvers to successful completion. Both also know that successful completion of scheduled training and necessary garrison duties does not depend as much on the leadership skills of an individual cadet as on the objectives of his cadre.

Therefore, a measure of a cadet's effectiveness should be based on a definition of the total domain of his responsibilities, along with statements of critical actions judged necessary for effective use of available and potential resources. Measurement must encompass a series of observations of the cadet's actual job behavior, by observers able to judge how effectively he accomplishes all the things regarded as important for doing the job properly, no less (deficient) and no more (excessive).

Thus measures of cadet effectiveness should be strongly job-centered, rationally devised, and based on observable job behaviors (Campbell et al., 1970). In other words, the evaluator must judge the extent to which particular cadet behaviors would contribute to mission accomplishment.

² Experienced camp evaluators have demonstrated this fact in judging particular tactical leadership exercises.

In Advanced Camp, subjective measurement of factors in a cadet's job performance can easily be applied to the specific leadership positions in which he is temporarily placed. Such measurement can be applied to situations such as the Tactical Application Exercise or to general, long term performance. Advanced Camp positions place the cadet in a fairly well defined and time-delineated job, similar to jobs he will later engage in as an officer. Officers and NCOs at Advanced Camp know the requirements of these jobs and would require only additional training in observing job behavior to become proficient in measurement.

To discern differences among cadets' performances in soft skills the following scaling procedures are recommended. They are listed in order of preference.

Behaviorally-Anchored Graphic Rating Scales. Figures 3 and 4 show two examples of behavior-based rating scales. The first is taken from a set of scales developed in a research project for assessing performance differences among Naval officers (Borman, Dunnette & Johnson, 1974). The second is taken from an experimental format of the Campus Behavior Scale being constructed by ARI for use in ROTC MS III assessment and counseling (Mietus, in preparation).

Note that these scales each have a label describing the dimension measured and examples of behavior to anchor the scale points. In addition, the first scale has a verbal description of the dimension and of scale point groupings. For the ROTC Advanced Camp, the Naval Officer Scale example (including behavioral dimension label, verbal descriptions, and behavioral examples) is recommended as a model. Ideally, there should be no fewer than five scale points nor more than nine (Sanders & Peay, 1974); five or seven are recommended. The behavioral dimensions, such as drive and initiative or persistence, should be determined by the officers and NCOs who are familiar with the cadets' jobs and who will rate their performance. No more than five dimensions should be rated because raters cannot accurately discriminate more (Guion, 1966, p. 97; Korman, 1971, p. 312).

Ratings can be made on three different bases: cadet performance over a period of time, in a leadership position, or in the Tactical Application Exercise (TAX). Each of these situations requires its own rating scale. If ratings are made on overall performance, they should be made at least twice by both Platoon Officer and NCO independently, perhaps two weeks apart. If they apply to performance in specific leadership situations, they should again be made independently by both platoon officer and NCO. At least two different performances should be rated, preferably after the first week of camp. If the TAX or a similar situational performance is rated, the rating should be on a cadet's overall performance in the TAX. The rater should be an officer with some experience in both the TAX and in small unit tactics who can observe the cadet's performance as a leader and team member.

A. PERFORMANCE OF DUTIES: MISSION ACCOMPLISHMENT

A-1 ANTICIPATING, PLANNING, & EXECUTING

To be alert to task and mission requirements; to anticipate problems and plan for contingencies; to collect and verify information and to organize and employ resources for task accomplishment with economy of effort, and to follow through to completion.

VERY
HIGH
2 or 3

Officers Very High on this function can be expected frequently to anticipate problems and to coordinate resources for solving them with such great efficiency as to result in substantial savings of money, manpower, or material resources.

- a. An officer coordinated the complete overhaul of a ship, including consolidation and detailing of all schedules and developing full cooperation with shipyard personnel to accomplish mission one month ahead of schedule with a saving of \$500,000.
- b. An engineering officer, over a period of three months, systematically directed the overhaul and correction of machinery and engineering deficiencies to that the entire engineering plant performed as designed, including ability to hold fuel power rpm for the first time within his ship's 15-year history.

HIGH
6 or 7

Officers High on this function can be expected to anticipate usual mission requirements and to organize resources effectively to meet them.

- a. In anticipation of a serious cut in overhaul funds, a commanding officer directed his department heads to determine alternate methods and revised priorities so that his ship was prepared to accomplish a total overhaul despite the setback.
- b. An officer anticipated problems and necessary safety precautions involved in decommissioning a ship and set up briefing sessions for officers, supervisors, and workers to make the best use of knowledge possessed by experienced personnel.
- c. An executive officer planned and carried out a drug education and prevention program on his ship by coordinating with Naval Investigative Service personnel to develop methods of apprehending users and of showing the dangers of drug usage.

LOW
3 or 4

Officers Low on this function can be expected occasionally to neglect to anticipate certain requirements or to gather insufficient information or resources to meet them effectively.

- a. An officer composed a staff directive based on only partial information with the result that subordinate commands were confused and a new directive had to be issued.
- b. An officer neglected to ascertain necessary facts and made up a report based on preconceived opinions and emotion.

VERY
LOW
1 or 2

Officers Very Low on this function can be expected to fail either to anticipate problems or to follow through on routine functions with the result that losses of money, material, or manpower may occur.

- a. A project manager demanded only solutions during briefings from subordinates and would not listen to problems requiring his decision. As a result, project milestones were not met and an important project had to be canceled.
- b. An officer did not anticipate pumping problems or develop firm plans for a transfer of fuel with the result that a 400 gallon oil spill occurred when fuel line was mistakenly connected to a full tank.
- c. An officer neglected routine maintenance on fuel oil service and backup pumps with results that power, electrical, and steering systems failed during critical evolution and severe damage occurred in a collision.

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

Figure 3. An example of a Behaviorally-Anchored Graphic Rating Scale

DRIVE AND INITIATIVE: MOTIVATION, PERSEVERANCE, WILLINGNESS, SELF-STARTING, SELF IMPROVING

| 7 VERY HIGH | 6 | 5 | 4 MODERATE OR AVERAGE | 3 | 2 | 1 VERY LOW |
|---|---|---|--|---|---|--|
| Having agreed to serve on most any committee, would attend all meetings, participate very actively, spend more time outside meetings than required. | | | Having agreed to serve on most any committee, would attend most meetings, participate adequately, spend time outside meetings only as required. | | | Having agreed to serve on most any committee, would attend few meetings or be late for them, not participate, spend no time outside of meetings, and complain about the intrusion on time. |
| If realized doing poorly in important course, relationship, job, would devote extraordinary effort to improving. | | | If realized doing poorly in important job, course, relationship, would devote sufficient effort to improving, or at least have intention of improving. | | | If realized doing poorly in important job, course, relationship, would give up, accepting failure. |
| If instructing leadership lab, would set up full lesson plan, discuss with others, rehearse. | | | If instructing leadership lab, would set up a minimal but adequate lesson plan, not rehearse, and require a little cadre help in the execution phase. | | | If instructing leadership lab, would not prepare at all and try to get others to do most of the work in the execution phase. |
| Devotes much time to extra-curriculars at school, job, other. | | | Devotes an average or moderate amount of time to extracurriculars at school, job, other. | | | Devotes no time to extracurriculars at school, job, other. |
| Adheres to rigorous physical training to prepare for Camp. | | | Generally follows a moderate physical training schedule to prepare for Camp. | | | Does not do anything to achieve or keep top physical condition to prepare for Camp. |
| If very tired, but have important tasks to complete, would do all competently on own initiative. | | | If very tired but had important tasks to complete would do most in an adequate way after prompting from others. | | | If very tired but had important tasks to complete, would try hard to find ways not to do them even though prompted by others. |
| If assigned term paper would submit ahead of schedule a neat, well-detailed product. | | | If assigned a term paper, would submit on time a fairly neat, adequately-thought-out product. | | | If assigned a term paper would submit late, a hastily done, sloppy product, or nothing. |

Figure 4. Another Example of a Behaviorally-Anchored Graphic Rating Scale.

Actually, rating individual situations in the TAX, as presently configured, is not very feasible because of problems with situation difficulty, variability, and sequencing. Furthermore, such an attempt would overload the rater while gaining little rating accuracy.

In developing behavior-based graphic rating scales, the following procedure should be used. For the sake of simplicity, it is written specifically for scales measuring overall cadet performance at camp; slight modifications will be necessary for adapting it to specific leadership positions or the TAX.

1. A group of about 15 to 20 Advanced Camp Platoon officers and NCOs familiar with the camp and cadet performance meet and contribute examples of behavior representing low, average, and high cadet performance. The entire domain of observable jobs is covered as completely as possible.
2. At the same meeting, these individuals list the qualities of a cadet at camp they consider important to effectiveness or ineffectiveness. They label the quality and make a statement about it. For example, "Mission Persistence: dogged persistence in carrying out orders and willingness to devote effort to achieve a goal."
3. The participants independently pair the examples with the various qualities. Examples are eliminated if there is not clear agreement as to which quality they belong. Qualities are eliminated if few examples clearly illustrate them.
4. The qualities and illustrative examples are re-written to be as specific and unambiguous as possible.
5. Another group of about 15 to 20 officers and NCOs, equally familiar with rating cadets at camp, then judge the examples of each quality on a five or seven point scale according to the degree to which they illustrate effectiveness or competency. Examples are eliminated if these judgments show a large dispersion or fall into more than one distinct group (Dunnette, 1966, p. 97; Campbell et al., 1970, p. 119; Sanders & Peay, 1974, p. 45.)

Although this procedure is costly in terms of manpower resources and time consuming, it will result in scales that are meaningful both to raters and to cadets and that can be used for effective developmental feedback and counseling. The scales will be quite reliable and possess considerable content validity.

Trained raters using these scales are less likely to produce such rating errors as halo, leniency, central tendency, and chance response tendency (Burnaska & Hollmann, 1974). "Halo" is failing to discriminate among different performances of the ratee. "Leniency" is giving only high or low ratings to all ratees. "Central tendency" is judging most persons at about the same level, and "chance response tendency" is rating in an indiscriminate manner (Dunnette, 1966, p. 28; Campbell et al., 1970, p. 112).

The raters and rating scale producers mentioned above should be chosen as far as possible on the basis of competence in the measured tasks. The behaviors and characteristics judged by raters to be important in others depend on the raters' own characteristics and effectiveness (Schneider & Bayroff, 1953; Mandell, 1956; Kirchner & Reisberg, 1962). Platoon officers and NCOs should be involved in developing and using the scales if accurate measurement and feedback are to be acquired. Agreement among raters about a ratee's performance varies as the roles of the raters vary (Campbell et al., 1970, p. 113).

In the Fort Lewis 1975 Advanced Camp, performance ratings by the platoon officer and NCO correlated +.75. This high but not total agreement provides a more valid measurement than ratings by any single rater group. Cadets will benefit in obtaining feedback from raters having several different perspectives.

Simple Graphic Rating Scales. An alternative measurement method to the behaviorally anchored graphic rating scale is a simple graphic rating scale. The following version, shown in Figure 5, is recommended.

| <u>Situation</u> | Very Ineffective | RATING Adequately Effective | Outstandingly Effective |
|----------------------|--------------------------|-----------------------------------|----------------------------|
| General Non-Tactical | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tactical | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Figure 5. Recommended Simple Graphic Rating Scale

This scale could be used in any of the three rating situations referred to earlier. Raters would also be the same. The rated performance is categorized in two situations, tactical and general non-tactical. Tactical situations involve the cadet's ability to lead his unit in specific tactical maneuvers. All other activities--unit movement, physical training, bleacher training, barracks living--are rated as non-tactical situations.

Again, the cadet is rated not so much on actual mission fulfillment as on his ability to identify, assimilate, and use material and human resources toward optimum performance. Ideally, rating should occur after each specific leadership performance, after each two-week camp period, and after the TAX. Thus, at least 11 ratings are available for averaging. Fewer ratings than this are unlikely to yield stable performance profiles.

Unlike the behaviorally anchored scale, this scale provides no specific behavioral information for use in developmental counseling. Its sole purpose is to provide military management with information for selection and program evaluation.

Because simple graphic measuring scales are subject to chance response, leniency, and central tendency errors, extensive rater training is essential. Raters should have a clear concept of effective and non-effective cadet behaviors as well as an understanding of rating procedures and possible errors. They should review and practice methods of observation and they should keep notes on the behavior of each cadet being rated. These notes are to be used as an aid in rating and counseling cadets but should not be formally reported.

Both behavior-based and simple graphic scales should be used in the existing Advanced Camp military training framework. Under this system, raw scores by raters are constantly monitored for rating error, cadets are assigned to platoons at random, and raw scores are transformed to Army Standard Scores. Random assignment assures a statistically normal distribution of job performance. The Army Standard Score system involves linear transformation of the raw score distribution to a distribution with mean of 100 and standard deviation of 20 in order to simplify comparison of cadets from different platoons. Because distribution is not "normalized" monitoring of scores is necessary to ensure that each rater's raw score distributions approximate the normal curve.

Using good behavioral evaluation and acceptability of scales to military management (see Proceedings of the 1975 ROTC Commanders' Conference, 1975) as the basis of its judgment, ARI did not consider the use of the 1976 scales to be desirable. The literature on performance appraisal indicates that earlier scales, such as those used in 1975, can discriminate differences among cadets about as well as the proposed behaviorally anchored scales and better than the proposed simple graphic scales (Campbell et al., 1970, Ch. 5). However, they are inferior to

behaviorally anchored scales as a tool for developmental counseling of cadets. Figure 6 shows the 1975 scales (ROTC Basic and Advanced Camp Program, 1975).

| | | |
|--|--------------------------|-------------|
| DOE, JOHN D. | 2183 | 12A4 |
| PERFORMANCE | | |
| A. Responds quickly and appropriately to a changed situation | 1 | 2 3 4 5 6 7 |
| B. Directs and maintains control of subordinates | 1 | 2 3 4 5 6 7 |
| C. Thinks on his feet | 1 | 2 3 4 5 6 7 |
| D. Keeps troops organized and initiates action forcefully | 1 | 2 3 4 5 6 7 |
| E. Keeps troops motivated | 1 | 2 3 4 5 6 7 |
| F. Obtains cooperation from subordinates | 1 | 2 3 4 5 6 7 |
| G. Maintains emotional control under stress | 1 | 2 3 4 5 6 7 |
| H. Shows ability to anticipate problems | 1 | 2 3 4 5 6 7 |
| I. Maintains communications with subordinates | 1 | 2 3 4 5 6 7 |
| J. Makes careful and systematic plans | 1 | 2 3 4 5 6 7 |
| SIGNATURE OF EVALUATOR _____ | SIGNATURE OF CADET _____ | |

Figure 6. Performance Data Card, 1975 Camp

The correlation matrix from the data gathered at the 1975 Fort Lewis Advanced Camp (Table 2) shows a stable and high level of inter-rater agreement among platoon officers, NCOs and peers. It is expected and desirable that the coefficients are not even higher; they are reflecting different perceptions of judges in different roles. ARI is conducting a longitudinal predictive validity investigation, the TRADOC-ROTC PROGVAL study, designed to analyze the ability of these measures to predict Officer Basic Course and first tour performance.

In summary, ARI suggests an evaluation of soft-skill leadership performance by trained, experienced, and top caliber officers and NCOs. Cadets should be evaluated in several different situations. Evaluations may be made on performance in leadership roles, on overall performance over set periods of time in ROTC Camp, or on overall performance in the TAX. Ideally, evaluations would be made in all these situations. These multiple evaluations should be averaged and transformed into Army anchored or simple graphic scales. Ratings should not be based solely on objective mission accomplishment, but on behaviors judged important to this end. Cadets must receive feedback on their performance; it is essential to their development.

Table 2. Intercorrelations of scores at 1975 Fort Lewis Camp

| | Platoon Officer | Platoon NCO | Peer Rating | Field Problem Test | Military Stakes | Orienteering Combined |
|--------------------------|--------------------|----------------|----------------|-----------------------|--------------------|--------------------------|
| Platoon Officer | — | | | | | |
| Platoon NCO | .75 | — | | | | |
| Peer Rating | .65 | .62 | — | | | |
| Field Problem Test | .28 | .28 | .32 | — | | |
| Military Stakes | .27 | .24 | .32 | .22 | — | |
| Orienteering Combined | .24 | .18 | .30 | .13 | .29 | — |

All are significant at the .001 level., N = 937.

Associate Rating. Another measure of performance and potential is the associate rating. Extensive research has established that associate ratings provide reliable and valid measurements of leadership effectiveness and potential. In a review of this research, Downey and Duffy (1977) found substantial concurrent and predictive validity correlations in the .30 to .50 range. They found little evidence of substantial differences among techniques of measurement in terms of reliability and validity, but there were differences in feasibility. Studies indicate growing controversy regarding the effects of demographic characteristics on peer evaluations. Such evaluations may be subject to racial bias, or to pulls of friendship. Results vary from study to study. Although three published studies (Downey and Duffy, 1977) showed no clear proof of racial bias, a study of the 1975 Summer Camp (Mohr and Reidy, 1976) indicated black cadets were far more biased toward other blacks than were white cadets toward whites. Mohr (1976) recently reported results from a small sample of Army officers indicating females score lower than males on ratings received from both sexes. These mixed findings indicate that ROTC management should be sensitive to possible bias in peer ratings.

In past camps, a nomination technique has been used--in which the top and bottom ten cadets in perceived leadership potential are listed for each cadet in the platoon. This has proven a feasible procedure. Peer ratings correlate high with platoon officer and NCO ratings, and moderately high with other Camp measures (Table 2).

ROTC Advanced Camp should continue the nomination procedure, but should also extend and refine it. Cadets should be taught about the rating procedure, its value and its uses, and should be sensitized to the racial bias potential. Three different ratings should be made: a) Future Combat Commander/Leader, b) Future Technical Staff Manager, and c) Contribution to Overall Unit Effectiveness. The first and second ratings measure potential in the two major dimensions of military officer jobs. The recording of both types of ratings will help DA with placement decisions and will allow females greater opportunity to receive higher nominations than they have had before. The last rating is of on-the-job performance at camp. In view of the heavy demands involved in making three ratings, it would be sufficient to have only the top and bottom seven (7) cadets listed by each rater in each of the three dimensions.

There should be two peer rating administrations, the first of which should occur at about the third week of camp. It should be used for giving immediate feedback, not for record. In addition, a rater by ratee score matrix should be compiled from these scores. Cadets whose ratings of others vary considerably from the mean may benefit by being made aware of this fact by the platoon officer. The second administration, conducted at the end of camp, should involve ratings on all three dimensions. A rater-ratee matrix on each dimension may be made to provide research and management information on bias and validity of the ratings. Cadets should receive feedback on their own scores back on campus.

SPECIFIC SUGGESTIONS IN RELATION TO SUBJECT MATTER

The authors have so far suggested using objective performance tests to assess and developmentally feed back cognitive skill levels. They have suggested using judgmental ratings to measure noncognitive performance and to record inferences about potential. The following is a detailed summary of the application of these methods to specific subject matter taught at Camp. It shows the subject taught, the 1976 measurement made (ROTC Basic and Advanced Camp Program, 1976), and the suggested 1977 measurement. Job performance and peer ratings apply to all these areas.

Subject: Drill, Parades, and Ceremonies (6 hours)

(a) Objective. To provide for leadership and drill experience, command and control of units, and the development of leadership characteristics such as initiative and self-confidence.

(b) Scope. School of the soldier and dismounted drill to include progressive instruction from squad to company and battalion formation, mass and extended mass formations, inspections, formal and informal guard mount. Leadership positions will be rotated. Voice and command, precision, and soldierly bearing will be emphasized.

1976 measurement: None

Recommended 1977 measurement: None

Subject: Physical Training (12 hours)

(a) Objective. To develop the physical and mental leadership traits of strength, endurance, coordination, self-confidence, boldness, and teamwork through a progressive physical conditioning program.

(b) Scope. A progressive and sequential physical conditioning program designed to prepare each cadet to complete the Advanced Physical Fitness Test (APFT) with a minimum total score of 300 points and a minimum of 60 points in each event to receive credit for successful completion of the Advanced Camp.

1976 Measurement: Physical Fitness Tests (2), one of which is for record.

1977 Recommended Measurement: Physical Fitness Tests (2); the first to be diagnostic, the second for record.

Comment: Cadets should be strongly urged to score as high as possible because research shows performance on physical fitness tests to be one of the valid predictors of officer performance one to five years later (ARI unpublished data).

Subject: Chemical, Biological, and Radiological (CBR) Indoctrination
(2 hours)

(a) Objective. To provide the cadet with an introduction to individual protective measures for CBR operations including tactical considerations for use in more complex field training exercises.

(b) Scope. Practical training in CBR protection to include mask drill. Additional CBR training will be integrated into tactical exercises or conducted as concurrent training.

1976 Measurement: Military Stakes Performance Test

1977 Recommended Measurement: Cognitive: Both Hands-on and Written Performance Tests, incorporated into Tactics Block testing.
Non-cognitive: Job Performance, Peer Rating

Subject: Field Sanitation, Personal Hygiene, Safety, and Emergency First Aid (2 hours concurrent training)

(a) Objective. To introduce the cadet to the measures necessary to maintain good personal health under field and garrison living conditions, the required standards for unit hygiene and safety, and emergency first aid measures.

(b) Scope. An orientation to the camp environment and to the intensive nature of the training to include safety items peculiar to the geographic area. Prevention measures and emergency first aid for common medical emergencies such as heat injury, snake and insect bites, burns, fractures, sunburn, and sprains, personal hygiene to include care of feet and general cleanliness. Additional instruction will be integrated with tactical exercises and/or conducted as concurrent training.

1976 Measurement: None

1977 Recommended Measurement: Written test of knowledge, administered early in Camp to reinforce learning and to provide camp management with information on adequacy of training.

Subject: Inspection of Personal Clothing and Equipment (2 hours)

(a) Objective. To familiarize the cadet with the preparation for, conduct of, and importance of, inspections.

(b) Scope. Establishment of standards for maintenance of clothing and equipment, inspection of quarters and equipment, and supply economy as an instrument of military management.

1976 Measurement: None

1977 Recommended Measurement: None

Subject: Weapons (54 hours)

Objective. To introduce the cadet to the small arms and weapons that are currently employed by tactical units in combat, the capability and employment characteristics of these weapons, and to familiarize the cadet on the standard service rifle.

Individual Weapons, 16 hours.

1. Scope. Review of mechanical training to include nomenclature, disassembly, stoppages and immediate action, and care and cleaning of the service rifle. Training will be conducted with rifle, 5.56mm, M16. The rifle marksmanship familiarization course prescribed in ROTC SUBJSCD S-508, ROTC Advanced Camp Program (Part IV) will be fired.

Machineguns and Cal. .45 Pistol, 8 hours.

a. Mechanical training to include nomenclature, stoppages, and immediate action, care, and cleaning. Familiarization firing to include organization and procedures of transition range, and crew duties with the M60 machinegun. Stress will be given to technique of fire including characteristics of fire, classes of fire, fire distribution, fire control and fire commands, target engagement, and employment considerations.

b. Familiarization firing, headspace and timing of machinegun, caliber .50 HB, M2.

Familiarization firing, Cal. .45 pistol (optional, at the discretion of the commander).

Mortars and Light Artillery, 16 hours.

1. Scope. Mechanical training and crew drill to include characteristics, ammunition, emplacement, care and cleaning, firing tables, use of sight, fire commands, referring the sight, realignment of the aiming stakes. Observation procedures for control of mortar and artillery fires utilizing the target grid system of fire control to include mil-relation, initial fire request, sensing, corrections, and the methods of adjustment. Fire direction procedures and conduct of fire with mortar and artillery sections to include duties of the computer chart operator and recorder.

Tanks, 4 hours.

1. Scope. Orientation on tanks to include demonstration of tactical employment (offensive and defensive), maneuverability and fire-power. Where practicable, cadets will be permitted to ride as crew members and fire the tank weapons system. The most modern equipment reasonably available will be used.

Anti-armor grenades, recoilless weapons, mines, flame throwers, 8 hours.

a. Familiarization firing and orientation to include characteristics, capabilities, and limitations of M72A2 light antitank weapons, 90mm and 106mm rifles, TOW and DRAGON antitank/assault weapons, M79/M203 grenade launcher, hand grenades, and portable flame throwers.

b. Orientation and demonstration to include capabilities and characteristics of mines. Familiarization with foreign mines will be included.

Air Defense Weapons, 2 hours.

1. Scope. Orientation on those air defense weapons systems organic to the division, primarily the CHAPARRAL, VULCAN, AND REDEYE systems, to include basic capabilities and limitations, maneuverability, deployability, and fire power. Where practical, cadets may be allowed to fire the system.

1976 Measurement: Military Stakes

1977 Recommended Measurement: Both Hands-on and Written Performance Tests. Written test administered at end of weapons block. Would have minimum cutoff score, criterion based. Reported back to PMS, and used as a management tool for diagnosing training effectiveness.

Subject: Signal Communications (4 Hours).

a. Objective. To familiarize the cadet with the signal equipment contained in a platoon-sized unit and to offer practical experience in the operation of that equipment under tactical conditions.

b. Scope. Review and practical work in the signal communications equipment organic to the infantry platoon to show its purpose and use. Practical work in the establishment and operation of a wire system and radio net; and in radio-telephone procedures and the use of the CEOI. Skill level will be that necessary for the cadet to participate meaningfully in follow-on instruction to be integrated with tactical exercises.

1976 Measurement: Military Stakes

1977 Recommended Measurement: Diagnostic Performance test built into training module. Score not reported beyond training committee. Used as a go/no go indicator for additional remedial training.

- - - - -

Subject: Tactics (108 hours)

Objective. To introduce the cadet to the principles and fundamentals of individual and small-units tactics, and the command and control required to employ small units tactically in a mid-intensity warfare environment. To instill confidence and provide tactical leadership opportunities. Critiques of all tactical training, oriented on leadership principles, are essential to the satisfaction of the mission and objectives of the camp.

Tactical Training of the Individual Soldier, 30 hours.

1. Scope. Individual day and night training, practical exercises in RECONDO/Ranger techniques to include: survival, mountaineering, evasion, hand-to-hand combat, water training, and patrolling. Patrolling will include: mission, methods of movement, control, and reports. The importance of the individual responsibility to observe, collect, and report military information will be stressed. Proper construction of field fortifications for the individual soldier as prescribed by the USAIS will be stressed.

Leading Small Units in Combat, 20 hours.

1. Scope. Practical problems in tactical leadership of small units solved by cadets. Leadership positions will be rotated frequently to afford participation by all cadets. Frequent critiques where on-the-spot corrections allow cadet leaders to evaluate their own performance with comprehension of the leadership techniques and tactical principles involved. Leadership training at squad level or below is stressed.

Tactics: Offensive and Defensive, 54 hours.

a. Offensive. The rifle platoon in security mission as the advanced guard, flank guard, rear guard; the rifle squad in the weapons platoon in the attack supported by tanks, artillery, and tactical air. The rifle company problem will stress platoon operations with cadre officers supervising the cadet commander's action. The majority of the training should stress platoon level tactics with some training at the company level. Instruction on CBR, combat intelligence, communications, and use of supporting arms will be integrated where feasible. Subject to availability, use of helicopters and other aviation support should be incorporated in all phases of tactical training.

b. Defensive. The rifle platoon in security missions (combat outposts); the rifle squads; platoon in defense. Stress perimeter-type defense, camouflage techniques, basic principles of defense against air attack; mechanized and guerrilla forces; use of explosives, chemical agents, minefields, and combat surveillance equipment.

c. Marchers and bivouacs. Selection of routes and sites; road and bivouac discipline, foot and motor march security.

d. Night training. A minimum of 12 hours of tactical training will be conducted during the hours of darkness.

e. Combat intelligence. Practical exercise in the collection and use of combat intelligence will be conducted throughout this phase of training.

f. Field fortifications. Proper field fortifications, peculiar to squad and platoon defensive positions, will be stressed.

g. Tactical Application Exercise (8 hours). The Tactical Application Exercise (TAX) is designed to reinforce prior tactical training to evaluate job performance in standardized tactical situations. The cadet is placed in at least nine simulated tactical situations which require appropriate application of basic knowledge, skills, and abilities necessary for success in squad level combat.

1976 Measurement: TAX Performance Rating

1977 Recommended Measurement:

1. Written test of knowledge administered at end of block. A criterion-based minimum cutoff score should be established. Score reported back to PMS. Used also as a training program evaluation tool by camp management.

2. Job Performance in TAX. TAX individual assessment should be reported as overall tactical competence. Individual specific diagnostic comments should be fed back to the cadet on the spot and not reported.

3. RECONDO rating. All cadets are scored (1 or 0) on each RECONDO event they complete successfully. Their rating is the sum of these event scores.

Subject: Leaders' Reaction Course (6 hours)

Scope. The Leaders' Reaction Course (LRC) is designed to improve leadership ability by providing the cadet a means of making a self-evaluation of his leadership ability, by permitting the cadet to apply lessons learned in formal leadership instructions, and by permitting the cadet to observe others' strengths and weaknesses.

1976 Measurement: None

1977 Recommended Measurement: None

Subject: Professional Development Activities (8 hours)

a. Objective.

1. To develop in the cadet a better understanding of, and appreciation for, the roles and contributions of the combat support and combat service support branches of the Army.
2. To develop in the cadet a better understanding of Army community life.

b. Scope.

1. Branch displays. Significant items of equipment organic to divisional units of various branches will be displayed. These displays may be presented by the utilization of the county fair system and/or other appropriate means, and will include appropriate description and demonstration as available time and equipment permit. The engineer display will be designed to represent the equipment and capabilities of the combat engineer battalion. The signal display will be designed to show the equipment used to establish the communications network at company and battalion level.

2. Sponsorship program. A scheduled and supervised introduction to the activities and facilities of an Army Installation, and visits to TOF units, motor pools, and logistical procurement and storage facilities. Cadet companies will be sponsored by Active Army battalions to the extent practicable. A voluntary program of individual sponsorship will be established to permit cadets to become familiar with the lifestyle of an officer and enhance their knowledge and appreciation of the Army community.

1976 Measurement: None

1977 Recommended Measurement: None

Subject: Land Navigation (20 hours)

a. Objective. To provide the cadet practical experience in land navigation and orienteering.

b. Scope. Provide practical experience in the use of the compass, map scales, and orienteering techniques; pacing and terrain association along with practical orienteering exercises.

1976 Measurement:

1. Pre-camp written test
2. Two four hour free style orienteering events, the scores of which are averaged.

1977 Recommended Measurement: Same as 1976, subject to experience from 1976 Camp.

EVALUATION SUMMARY

The following scores should be reported to the Professor of Military Science of the cadet concerned:

Job Performance Average Rating (all ratings of all raters averaged); Army Standard Score (ASI) Format

Peer Ratings on each of three dimensions; AST format

Tactics Knowledge Score; AST format

Weapons Knowledge Score; AST format

RECONDO Rating; raw score format

Physical Fitness Test Score; raw score format

Figure 7 summarizes the suggested Camp Evaluation System and reports and feedback to follow, using evaluation measures that are related to subject matter taught at camp.

| Subject Matter | | | | | | | | | | |
|--|--------------------------------------|-------------------|-----|-----------------------------|-------------|---------|--------|---------|------------------------|--|
| MEASURE | Drill | Physical Training | CCR | Sanitation Safety First Aid | Inspections | Weapons | Signal | Tactics | Leader Reaction Course | Professional Land Development Navigation |
| Hard Skill Performance Test Performance-based Test | | 1, 3 | | | | | | 3 | | 3 |
| | | | 3 | | | 3 | 1 | | | |
| Written Test | | | | | | | | | | |
| | | | 3 | 1 | | 3 | 1 | 3 | | |
| Soft Skill | | | | | | | | | | |
| Job Performance Rating | <div> <div></div> <div></div> </div> | | | | | | | | | |
| Peer Rating | <div> <div></div> <div></div> </div> | | | | | | | | | |

Figure 7. Recommended Evaluation for Subject Matter

1. Feedback to cadet and camp management only
2. Feedback to cadet; report to PMS and DA
3. Feedback to cadet, camp management; report to PMS and DA

REFERENCES

- Borman, W. C., Dunnette, M. D., & Johnson, P. D. The development and evaluation of a behavior-based naval officer performance assessment package. (Prepared for Bureau of Naval Personnel, Contract N00600-72-C-1240). Minneapolis: Personnel Decision, Inc., July 1974.
- Burnaska, R., & Hollmann, T. An empirical comparison of the relative effects of rater response biases on three rating scale formats. Journal of Applied Psychology, 1974, 59, 3, 307-312.
- Campbell, J. P., Dunnette, M. D., Lawler, E. E., & Weick, K. E. Managerial Behavior, Performance, and Effectiveness. New York: McGraw-Hill, 1970.
- Downey, R. G., & Duffy, P. J. Review of peer evaluation research. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, Draft report, 1977.
- Dunnette, M. Personnel Selection and Placement. Belmont, Calif: Wadsworth, 1966.
- Guion, R. M. Personnel Testing. New York: McGraw-Hill, 1966.
- Helme, W. H., Willemin, L. P., & Day, R. W. Psychological factors measured in the differential officer battery. Army Research Institute Research Report 1173, July 1971. (NTIS No. AD 737 685).
- Helme, W. H., Willemin, L. P. & Grafton, F. C. Dimensions of leadership in a simulated combat situation. Army Research Institute Research Report 1172, July 1971. (NTIS No. AD 730 315).
- Helme, W. H., Willemin, L. P., & Grafton, F. C. Prediction of officer behavior in a simulated combat situation. Army Research Institute Research Report 1182, March 1974. (NTIS No. AD 779 445).
- Hirshfeld, S. F., Young, D. L., & Maier, M. H. Procedures for validating Skill Qualification Tests. Army Research Institute P-76-2, April 1976.
- Individual Training and Evaluation Group. Advanced materials for SQT development workshops. Unpublished draft, 1976. Fort Eustis, VA.
- Kirchner, W. K. & Reisberg, D. J. Differences between better and less effective supervisors in appraisals of subordinates. Personnel Psychology, 1962, 15, 295-302.

Korman, A. K. Industrial and Organizational Psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1971.

Mandell, M. M. Supervisory characteristics and ratings. Personnel, 1956, 32, 435-440.

Meitus, J. Development of a behaviorally based ROTC cadet assessment and development system. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. Manuscript in preparation.

Mohr, E. S. Peer evaluations: Are women officers rated differently? Army Research Institute, Research Memorandum 76-30, 1976.

Mohr, E. S., & Reidy, R. F. Racial bias at ROTC Advanced Summer Camp, Fort Bragg, 1975. Army Research Institute, Research Memorandum 76-22, 1976.

Proceedings of the 1975 ROTC Commanders' Conference. Ft. Monroe, VA: U.S. Army Training and Doctrine Command. 1975.

ROTC Basic and Advanced Camp Program. Fort Monroe, VA: U.S. Army Training and Doctrine Command, 1975.

ROTC Basic and Advanced Camp Program. Fort Monroe, VA: U.S. Army Training and Doctrine Command, 1976.

Sanders, M. & Peay, J. Employee performance evaluation and review: A Summary of the literature. (R&D Tech. Rep. No. 282). Crane, Indiana: Naval Ammunition Depot, August 1974.

Schneider, D. E., & Bayroff, A. G. The relationship between rater characteristics and validity of ratings. Journal of Applied Psychology, 1953, 37, 278-280.

Siegal, L. Industrial Psychology. Homewood, Ill.: R. Irwin, 1969.

Uhlaner, J. E. Human performance, jobs and systems psychology--The systems measurement bed. Army Research Institute Technical Report S-2, October 1970. (NTIS No. AD716 346)

Uhlaner, J. E. Management leadership in system measurement beds. Army Research Institute Technical Report S-3, August 1975. (NTIS No. AD A021 888).